

Figure 1A

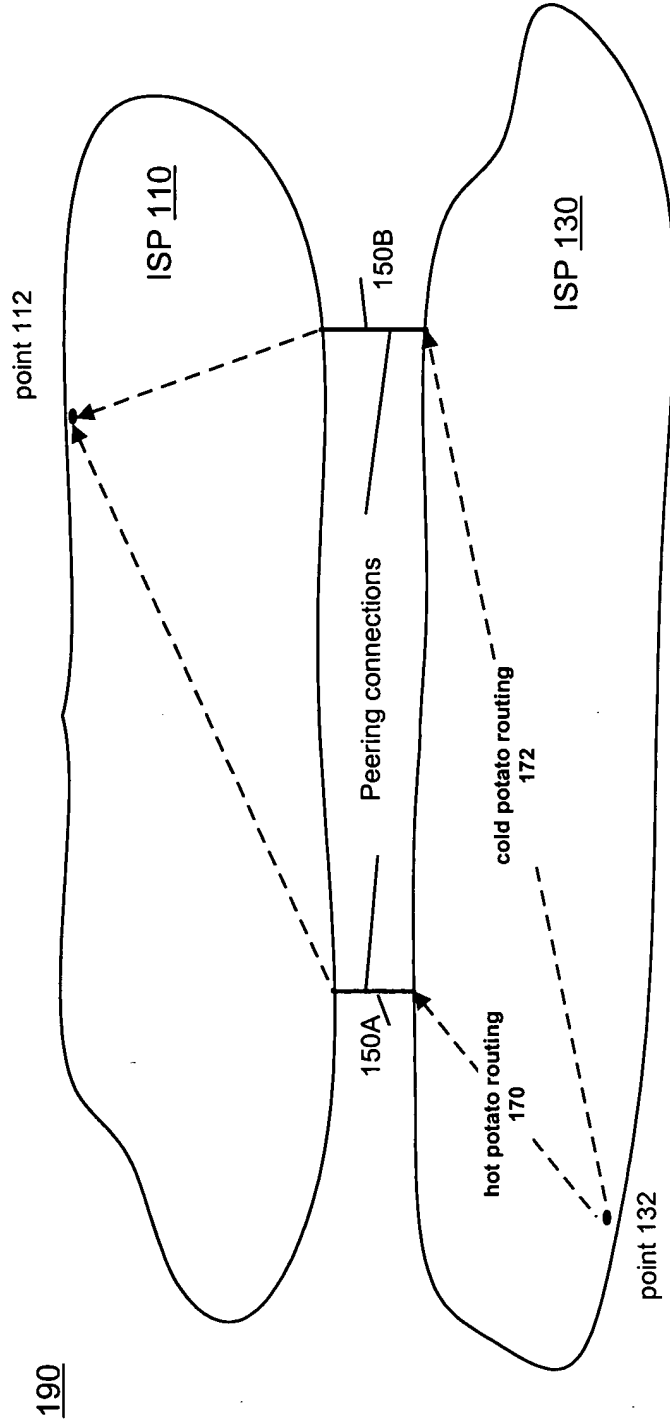


Figure 1B

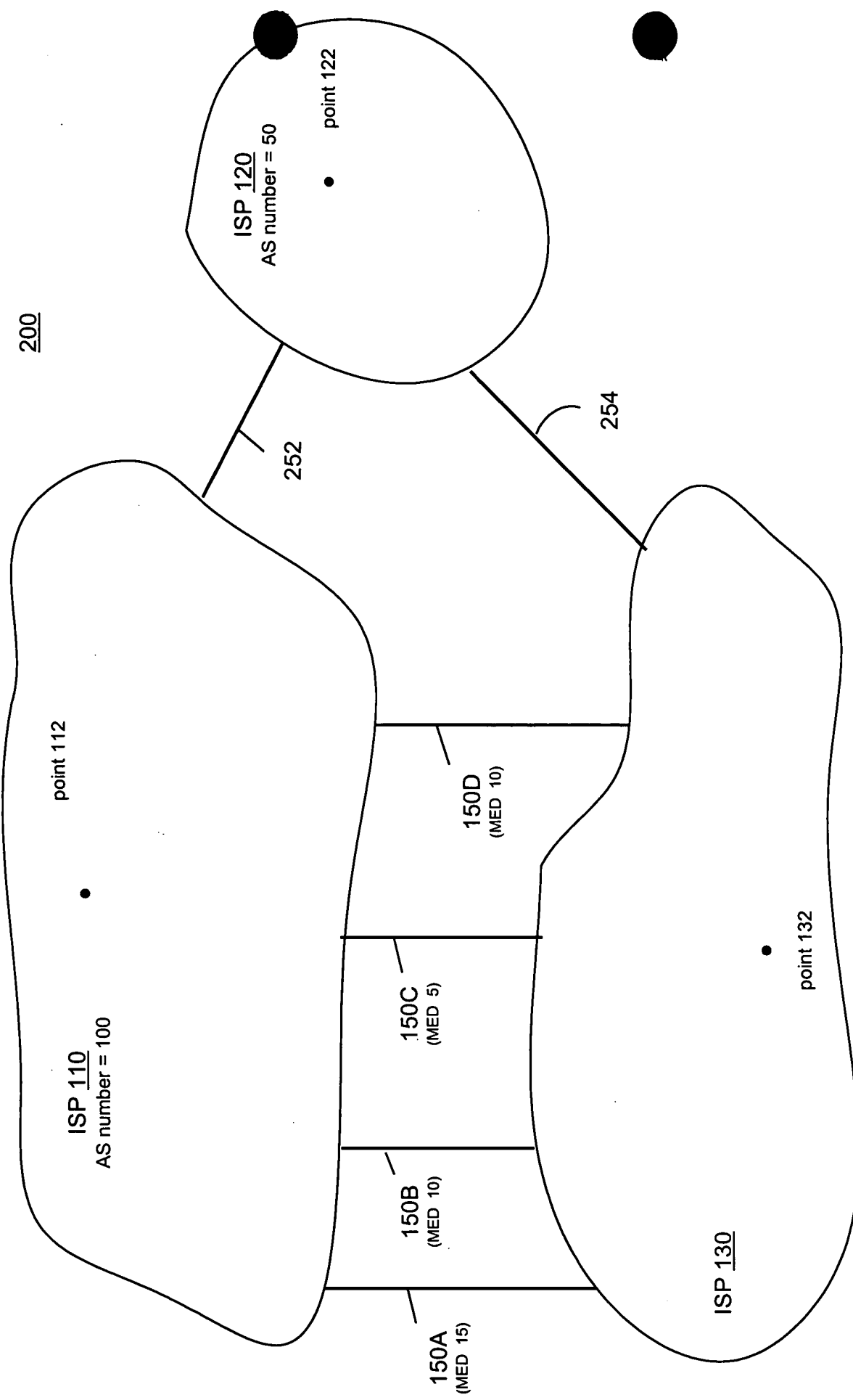
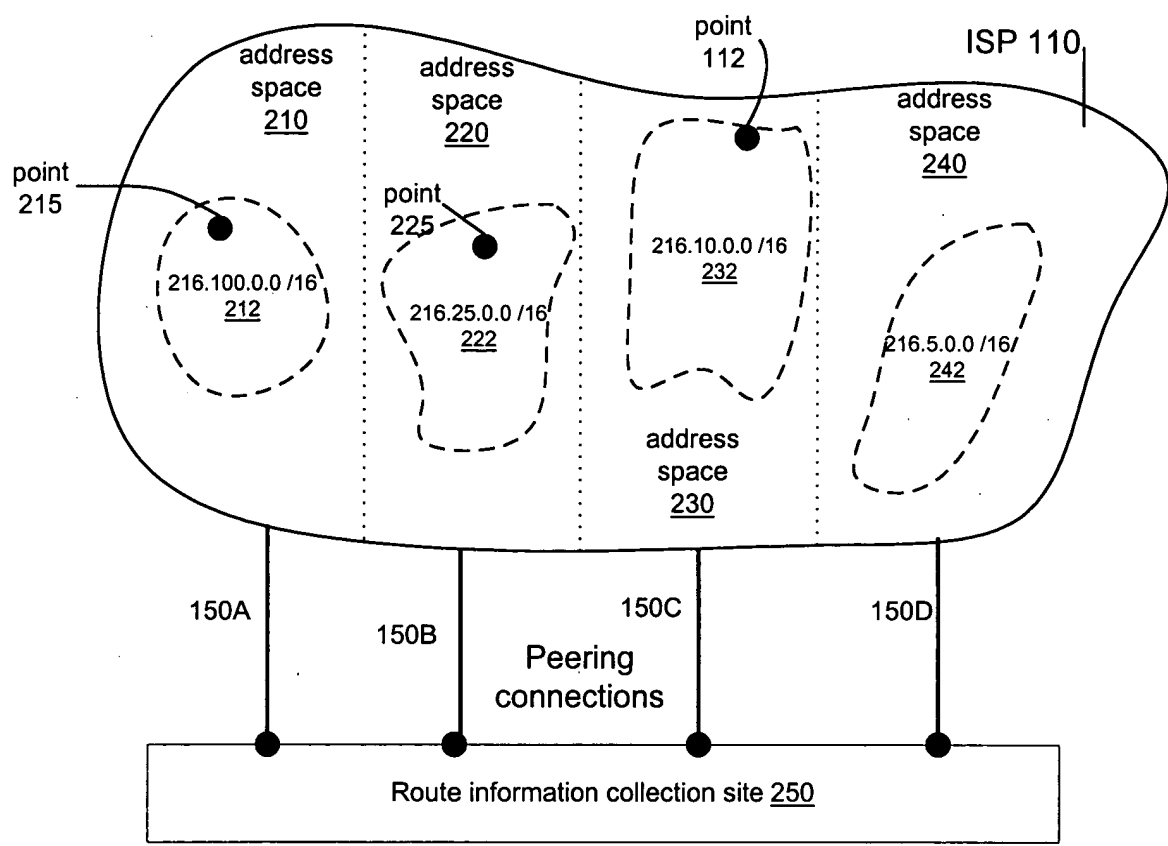


Figure 2A

Figure 2B



IP ADDRESS	PREFIX	ROUTE INTERFACE	% OF TRAFFIC SEEN BY SITE 250
216.0.0.0	/8	150A	50
216.0.0.0	/8	150B	50
216.0.0.0	/8	150C	0
216.0.0.0	/8	150D	0

IP ADDRESS	PREFIX	ROUTE INTERFACE	% OF TRAFFIC SEEN BY SITE 250
216.100.0.0	/16	150A	100
216.25.0.0	/16	150B	100
216.10.0.0	/16	150C	0
216.5.0.0	/16	150D	0

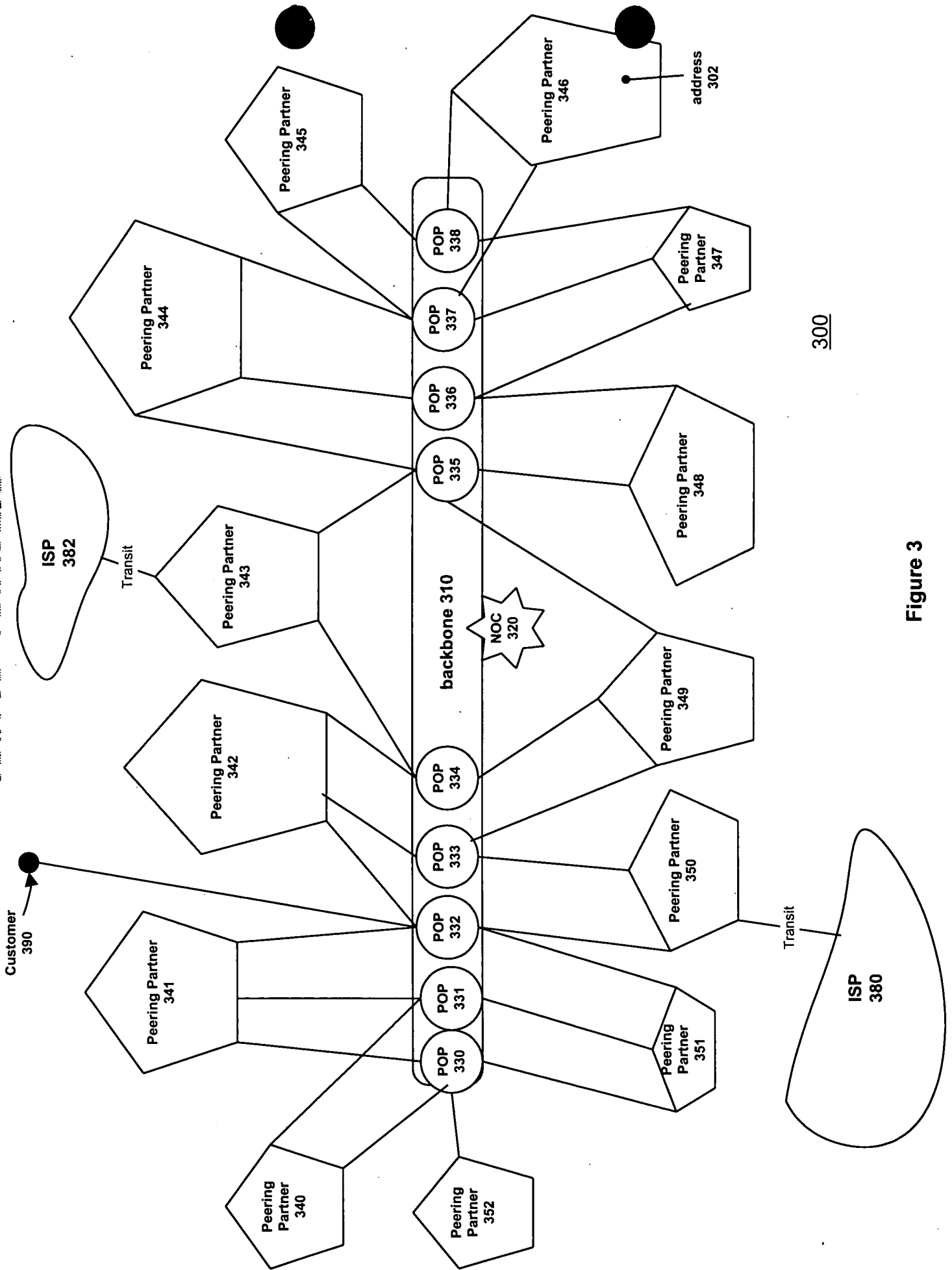


Figure 3

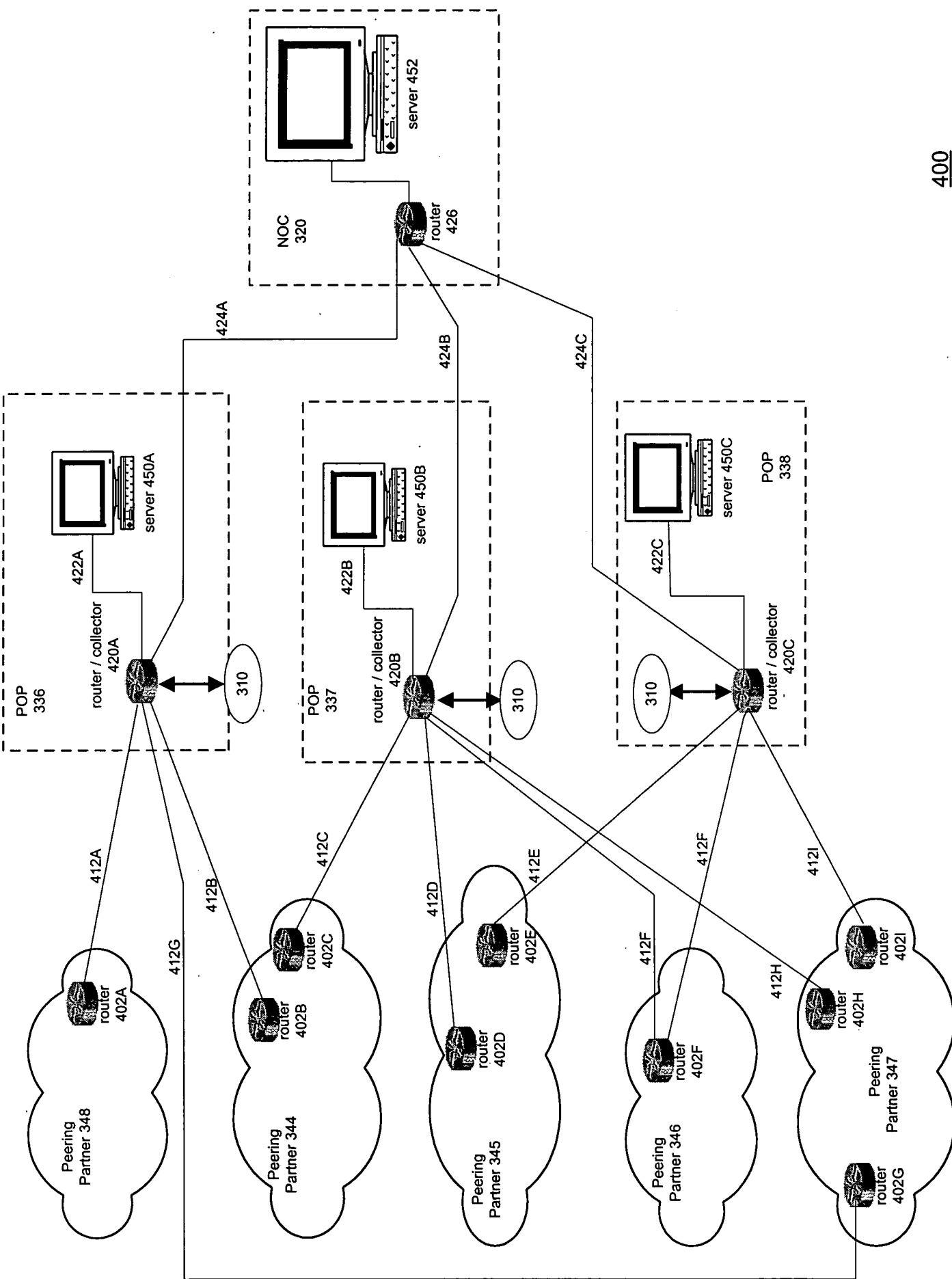


Figure 4

IP Statistics Data Table 500

IP Address	Mask	Prefix length	Exchange ID	Interface number	Packet count	Byte count	Strength	Pointer to associated route entry
140.150.0.0	11111111.11111111.11110000.0000	/20	POP 330	5	10000			
140.150.16.0	11111111.11111111.11110000.0000	/20	POP 330	5	10			
140.150.16.0	11111111.11111111.11110000.0000	/20	POP 330	6	100			
140.150.32.0	11111111.11111111.11110000.0000	/20	POP 330	5	10			
140.150.32.0	11111111.11111111.11110000.0000	/20	POP 330	7	100			

Figure 5A

Route Entry Table 510

IP Address	Mask	Prefix length	Exchange ID	Interface number	Strength	Next hop	Peer ID	AS Path	MED	Status flags	Packet count	Byte count
140.150.0.0	11111111.11111111.00000000.00000000	/16	POP 330	5		140.100.1.1	1	100	5		10020	
140.150.0.0	11111111.11111111.00000000.00000000	/16	POP 332	6			2	100 • 50	5		100	
140.150.0.0	11111111.11111111.00000000.00000000	/16	POP 334	7			4	100 • 200 • 50	10		100	

Figure 5B

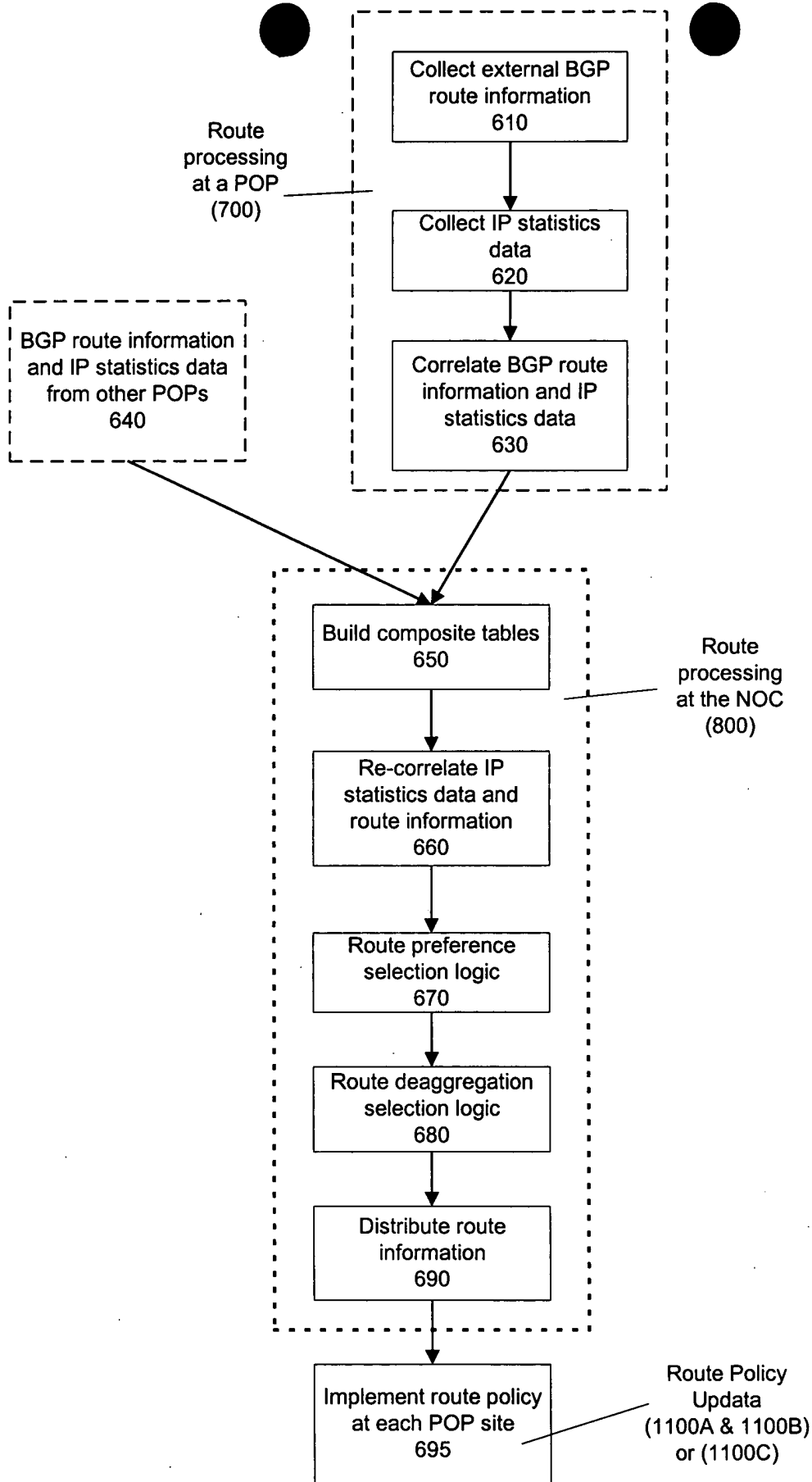


Figure 6

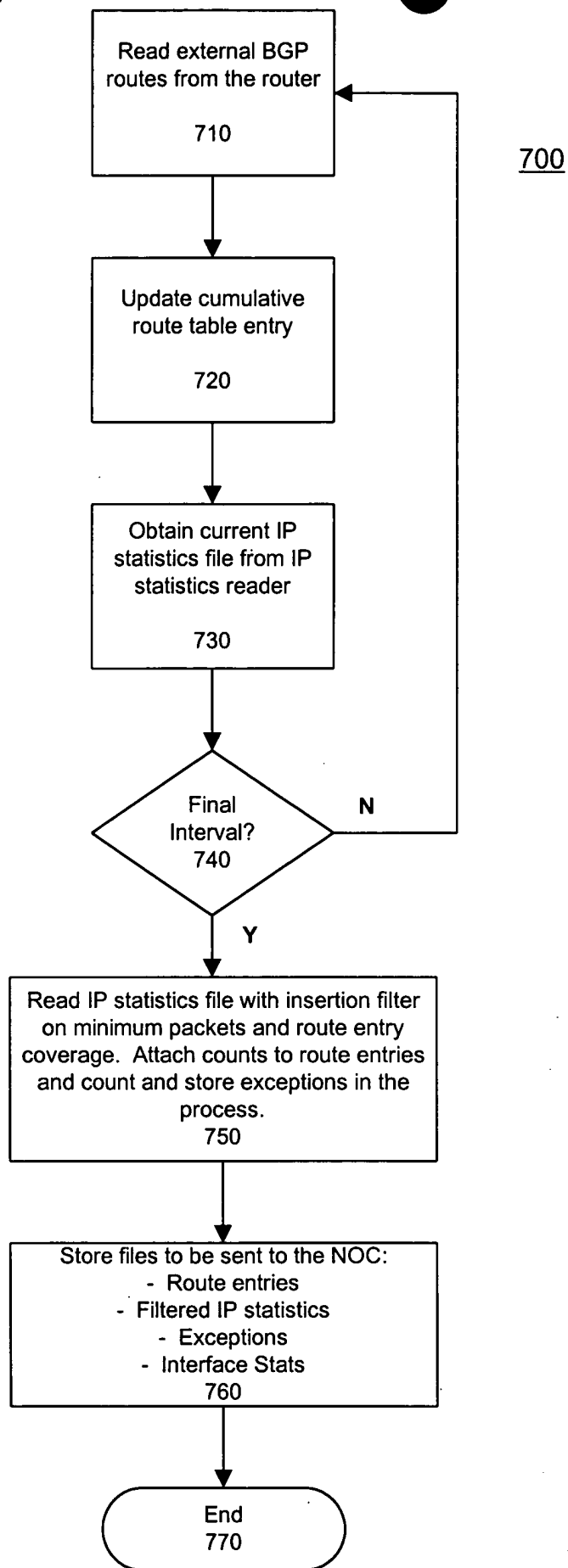


Figure 7

0000013000000000

Route Processing at the NOC

800

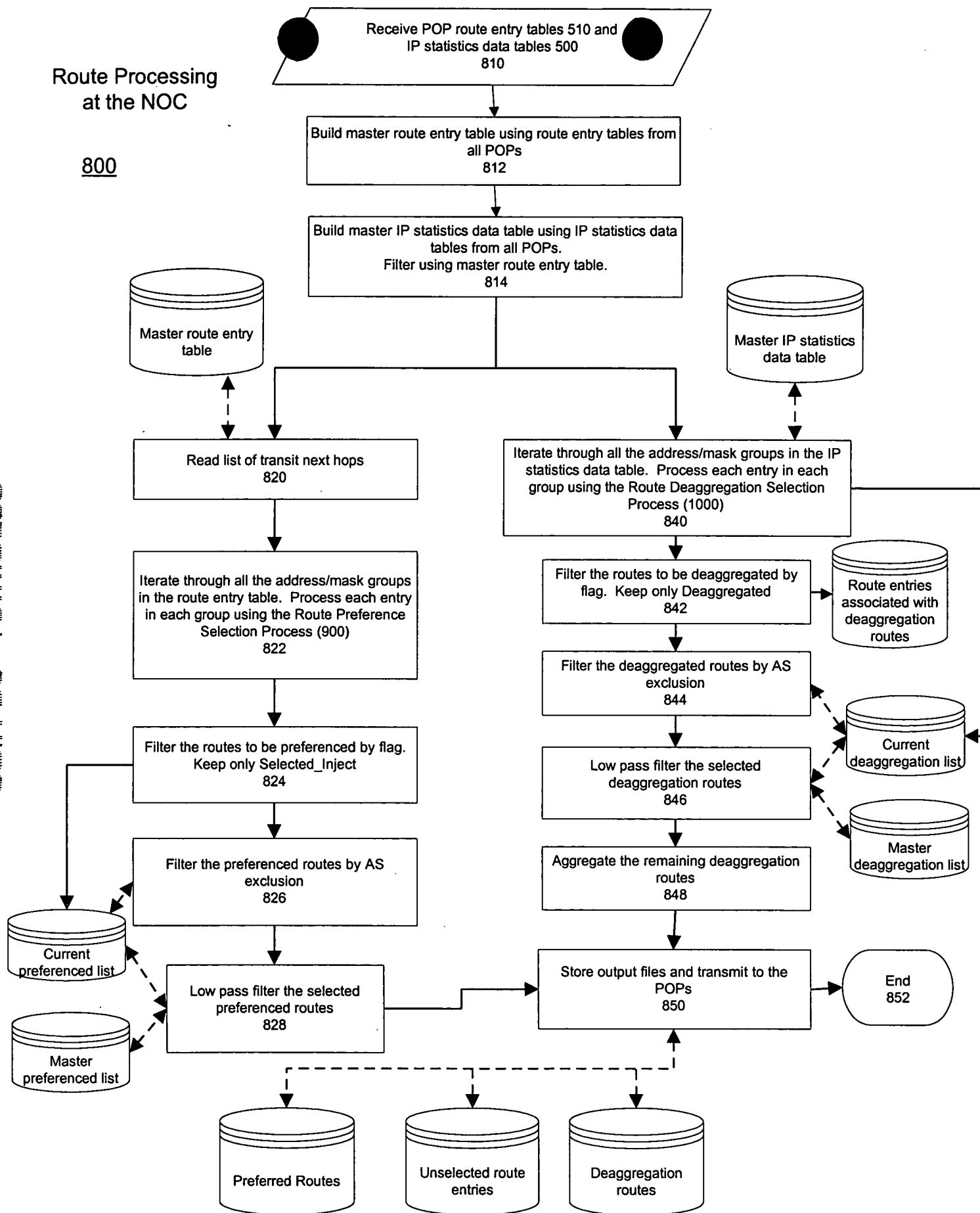


Figure 8

Route Preference Selection Process

900

Compare BGP parameters within route group

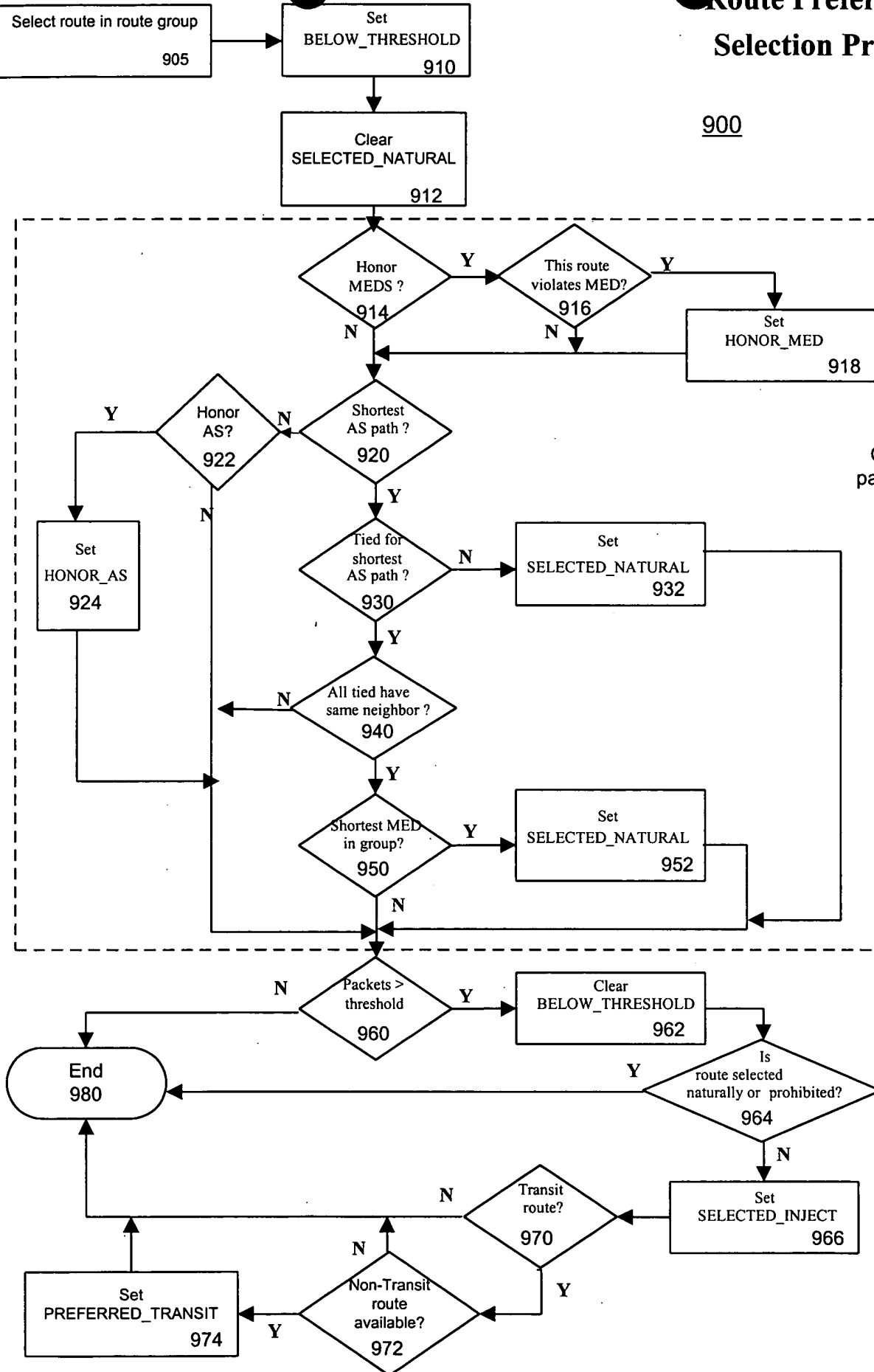


Figure 9

Route Deaggregation Selection Process

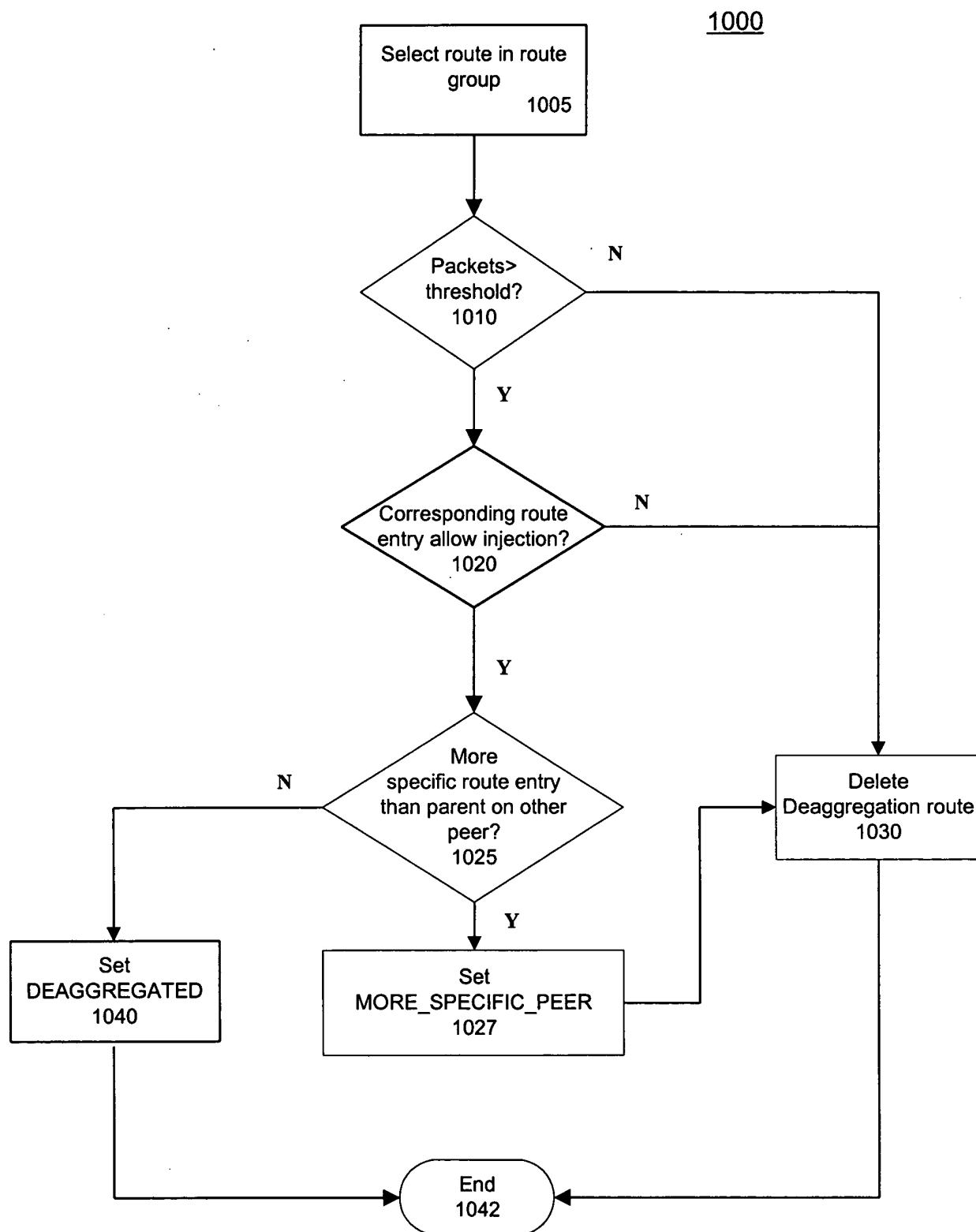


Figure 10

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graph TD
    1102[Receive NOC preferred/  
deaggregated files  
1102] --> 1104[Build a Preferred route file for  
the specific POP  
1104]
    1104 --> 1106[Install Local Preferences  
1106]
    1106 --> 1108[Compare existing  
deaggregations to generate a list  
of routes to be announced  
and a list to be withdrawn  
1108]
    1108 --> 1110[Verify the status of the routes  
we are deaggregating via a  
BGP "soft in"  
1110]
    1110 --> 1112[Write the announcements and  
withdrawals to a file  
1112]
    1112 --> 1114[Issue the announcements and  
withdrawals  
1114]
    1114 --> 1116([End  
1116])
  
```

1100A

Figure 11A

1100B

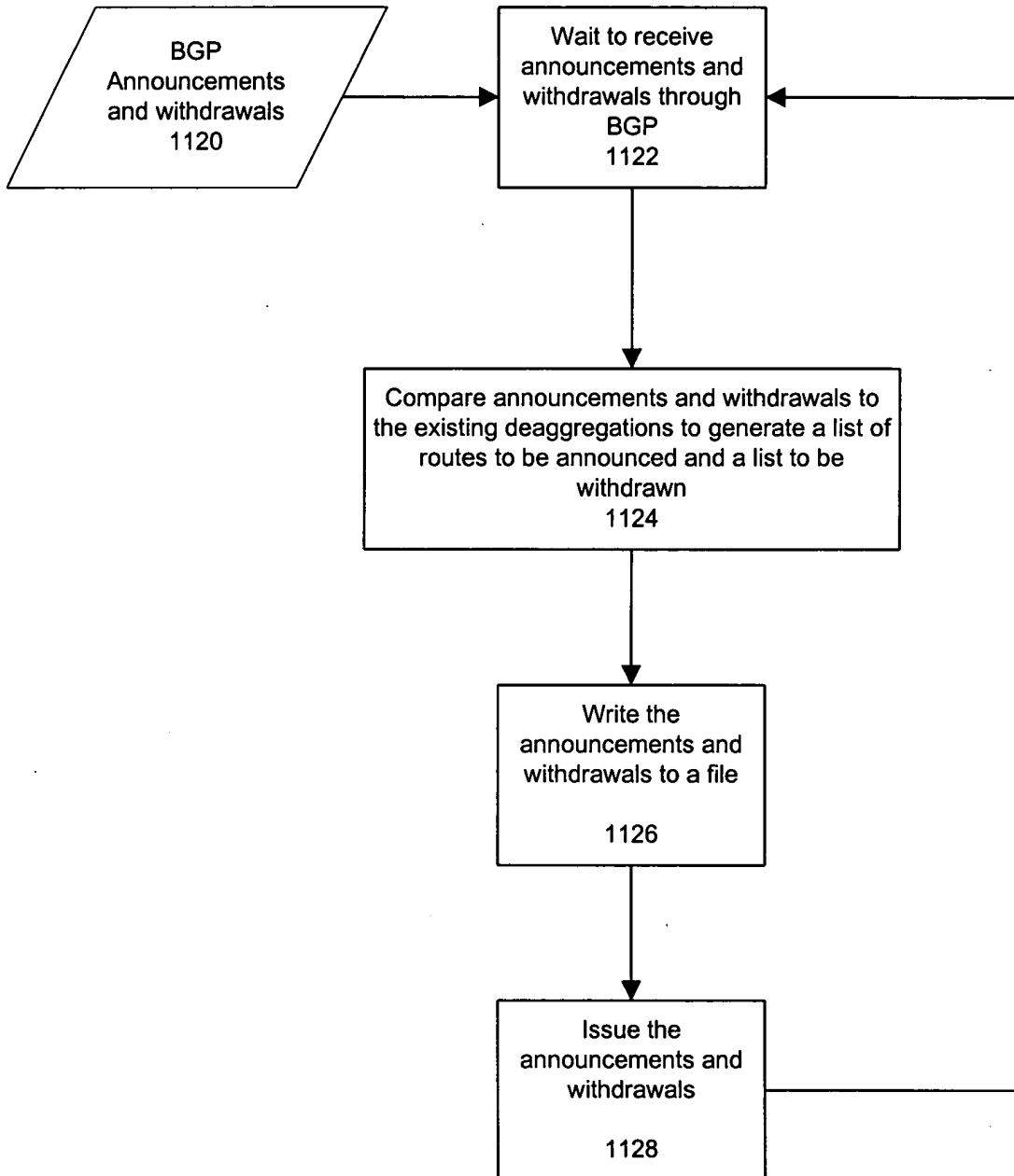
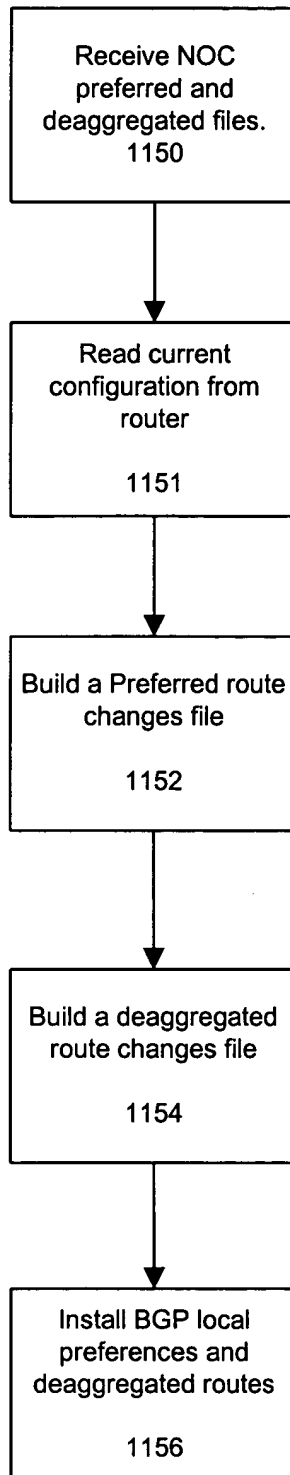


Figure 11B



1100C

Figure 11C

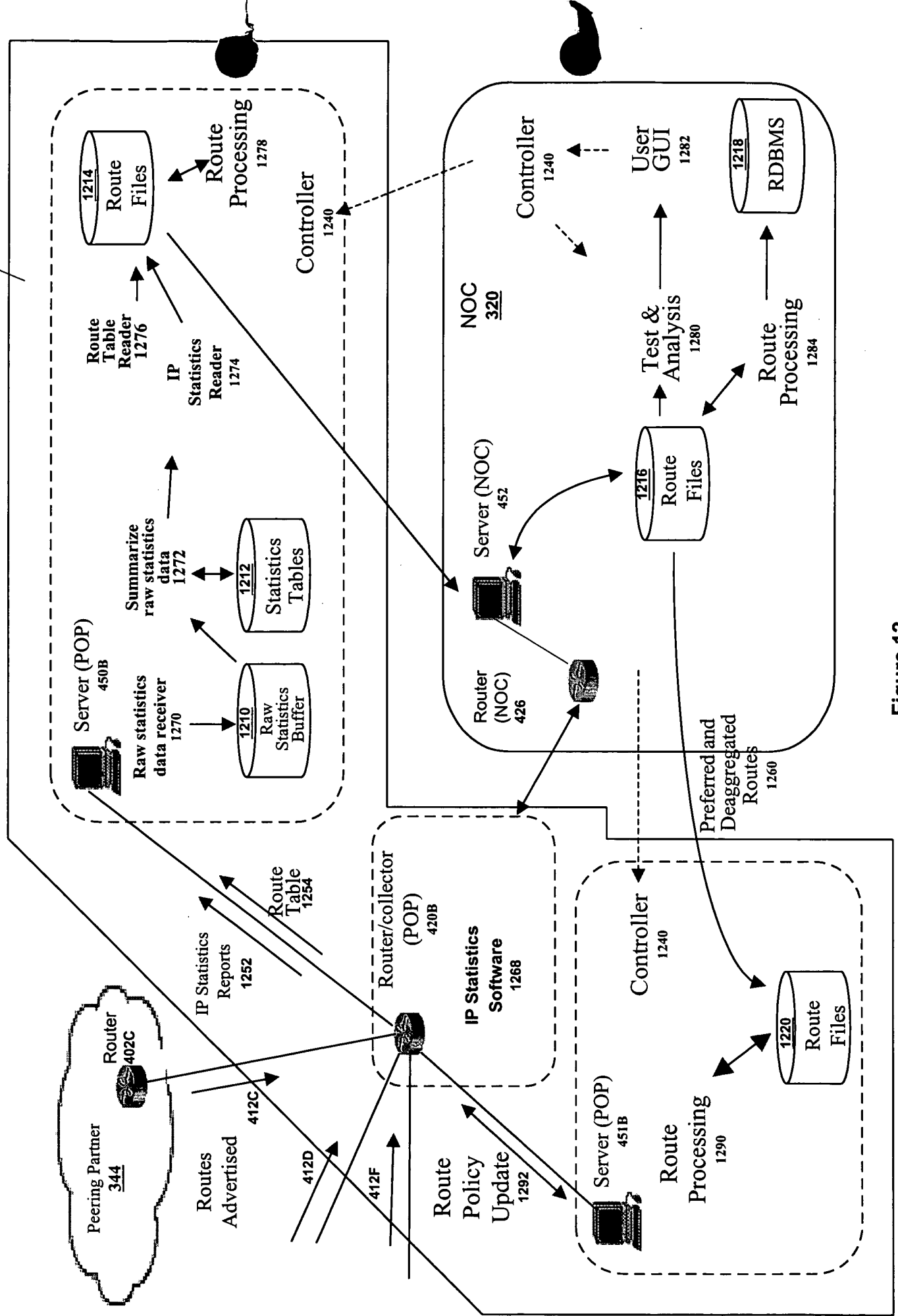


Figure 12